

## REMARKS

### I. STATUS OF THE CLAIMS

Claims 1, 4, 5, 6, 7, 8, 9 and 23-24 have been amended, claims 10-22 have been cancelled without prejudice or disclaimer, and claims 25-34 have been newly added. Newly added claims 25-32 are somewhat similar to original claims 1 and 3-9. No new matter is being presented.

In view of the above, it is respectfully submitted that claims 1, 3-9 and 23-34 are currently pending in this application.

### II. THE REJECTION OF CLAIMS 1-5, 8, 9, 23 AND 24 UNDER 35 U.S.C. §102(e) AS BEING ANTICIPATED BY ONAKA

Independent claim 1 as amended, recites amongst other novel elements, "combining means for **combining** said **probe light with light to be input** to said **optical amplifying means**" and "controlling means for **controlling** said optical **power of** said **probe light and** said optical **power of** said **light to be input** to said **optical amplifying means so** that an **output** from said detecting means becomes **constant**."

Onaka discloses an optical amplifier having an optical amplifying medium, a pump light source outputting pump light, and a first optical coupler for supplying the pump light to the optical amplifying medium. A probe light source outputs probe light having a wavelength included in an amplification band, a second optical coupler supplies the probe light to the optical amplifying medium, and detectors detect powers of input signal light and the probe light, respectively. A **control unit controls the power of the probe light** according to outputs from the detectors (abstract).

Accordingly, Onaka discloses a configuration that receives an input signal light, then adds a probe light to the input signal light at an electrical level, and then supplies only the probe light. Therefore, **only** the input level (the power) of the **probe light is controlled to stay constant**.

Onaka does not disclose "combining said probe light with light to be input to said optical amplifying means" nor "controlling said optical power of said probe light and said optical power of said light to be input to said optical amplifying means so that an output

from said detecting means becomes constant."

Accordingly, Applicants respectfully assert that the rejection of independent claim 1 under 35 U.S.C. §102(e) should be withdrawn because Onaka fails to teach or suggest each feature of independent claim 1, as amended.

Furthermore, Applicants respectfully assert that dependent claims 3-5, 8 and 9 are allowable at least because of their dependency from claim 1 and the reasons set forth above.

Additionally, claim 2 has been cancelled without prejudice or disclaimer thus rendering its rejection moot.

Independent claim 23 recites an amplifying method comprising, amongst other novel operations "**combining input light with probe light** having an optical power corresponding to a difference between a prescribed reference value and a value of the optical power of the input light; **and amplifying the combined light.**"

As noted above, Onaka discloses a configuration that receives an input signal light, then adds a probe light to the input signal light at an electrical level, and then supplies only the probe light. Therefore, **only the probe light is supplied.**

Onaka does not disclose "combining input light with probe light", and "amplifying the combined light", as recited in independent claim 23.

Accordingly, Applicants respectfully assert that the rejection of independent claim 23 under 35 U.S.C. §102(e) should be withdrawn because Onaka fails to teach or suggest each feature of independent claim 23.

Independent claim 24 recites an optical amplifying method comprising, amongst other novel operations "**controlling an optical power of probe light** to be input to optical amplifying means" and "**keeping an optical power of light to be input to said optical amplifying means approximately constant.**"

As discussed above, Onaka discloses a configuration that receives an input signal light, then adds a probe light to the input signal light at an electrical level, and then supplies only the probe light. Therefore, **only the input level (the power) of the probe light is controlled to stay constant.**

Onaka does not disclose "controlling an optical power of probe light" and "keeping an optical power of light to be input to said optical amplifying means approximately constant" as recited in independent claim 24.

Accordingly, Applicants respectfully assert that the rejection of independent claim 24 under 35 U.S.C. §102(e) should be withdrawn because Onaka fails to teach or suggest each feature of independent claim 24.

III. THE REJECTION OF CLAIMS 6 AND 7 UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER ONAKA

Applicants respectfully traverse this rejection for at least the following reason. Claims 6 and 7 depend upon independent claim 1, and as noted above, Onaka fails to teach or suggest each feature of independent claim 1, as amended.

Accordingly, Applicants respectfully assert that the rejection of claims 6 and 7 under 35 U.S.C. §103(a) should be withdrawn.

IV. CONCLUSION

In view of the above, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: March 9, 2004

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